

**NOAA
FISHERIES**

U.S. West Coast Sea Turtle Strandings and Sightings

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Review of NOAA Fisheries' Science on Marine Mammals & Turtles
Southwest and Northwest Fisheries Science Centers

27-31 July 2015

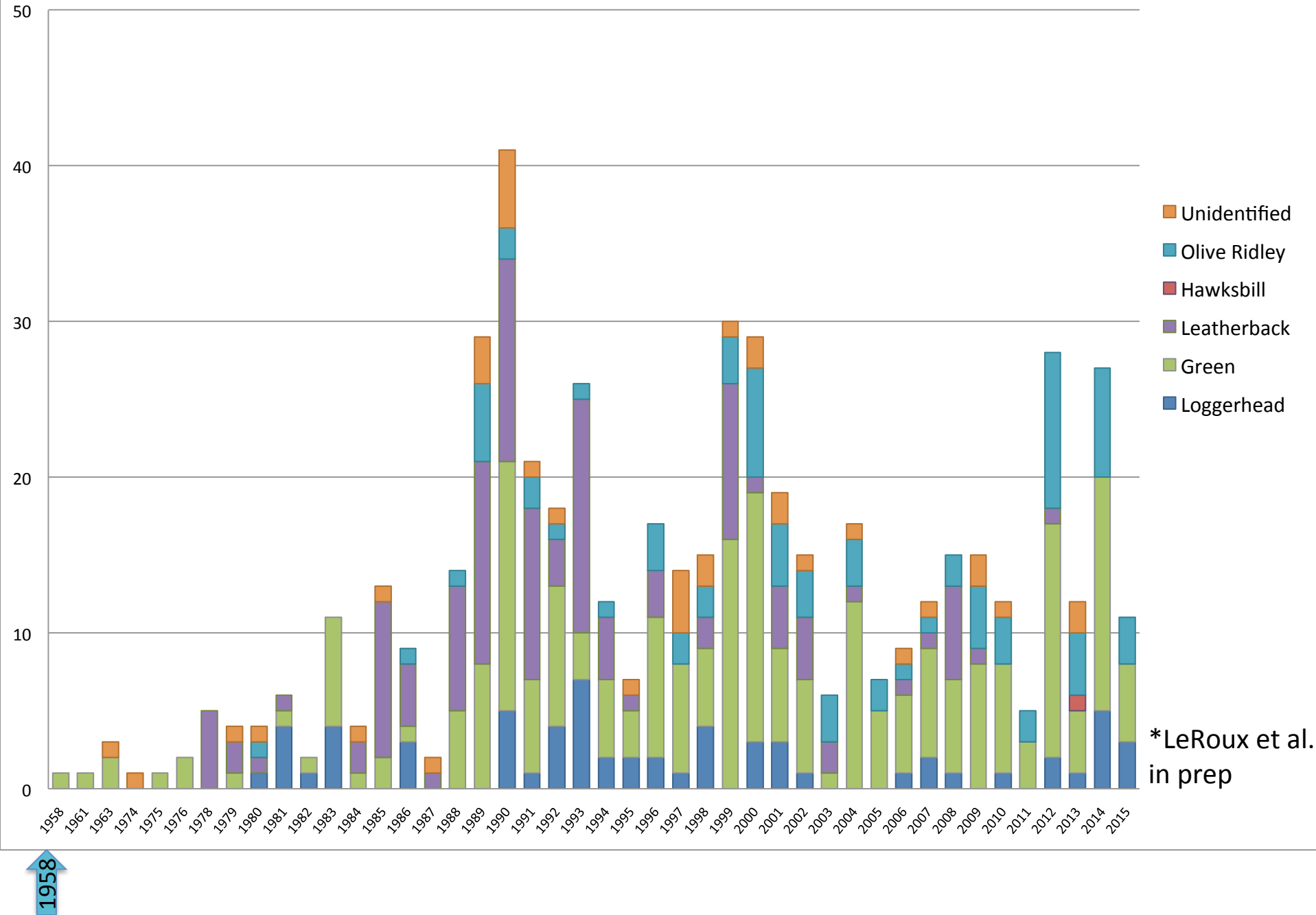
La Jolla, CA

Why study strandings?

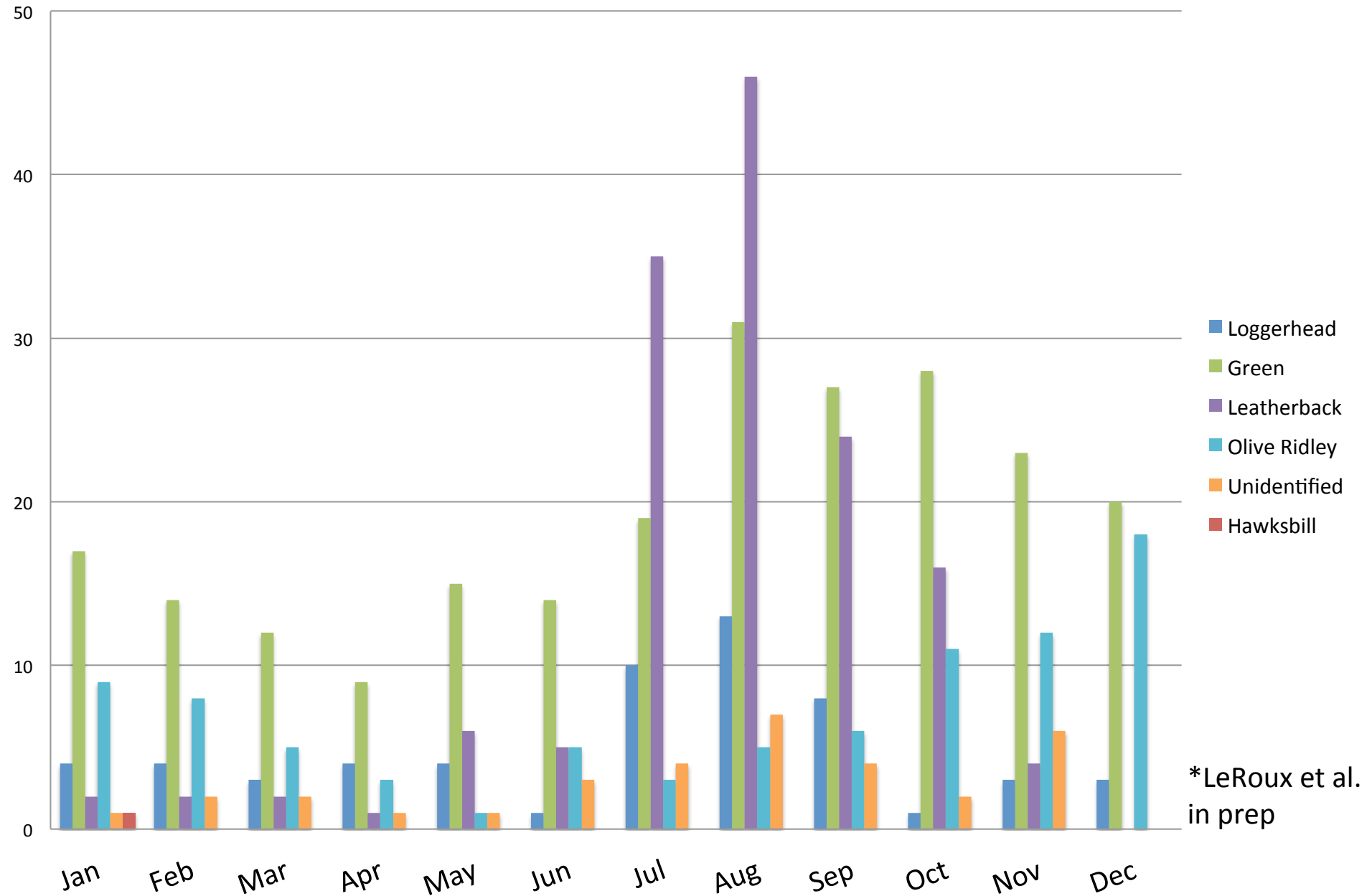
- Provide valuable data points to allow us to address NMFS management priorities (e.g. health assessment, anthropogenic impacts)
- Determine key habitats for turtles off of the West Coast
- Determine impacts to specific species, populations, life stages, seasonal distributions and geographic ranges
- Provide biological data for a variety of population studies, management and conservation efforts



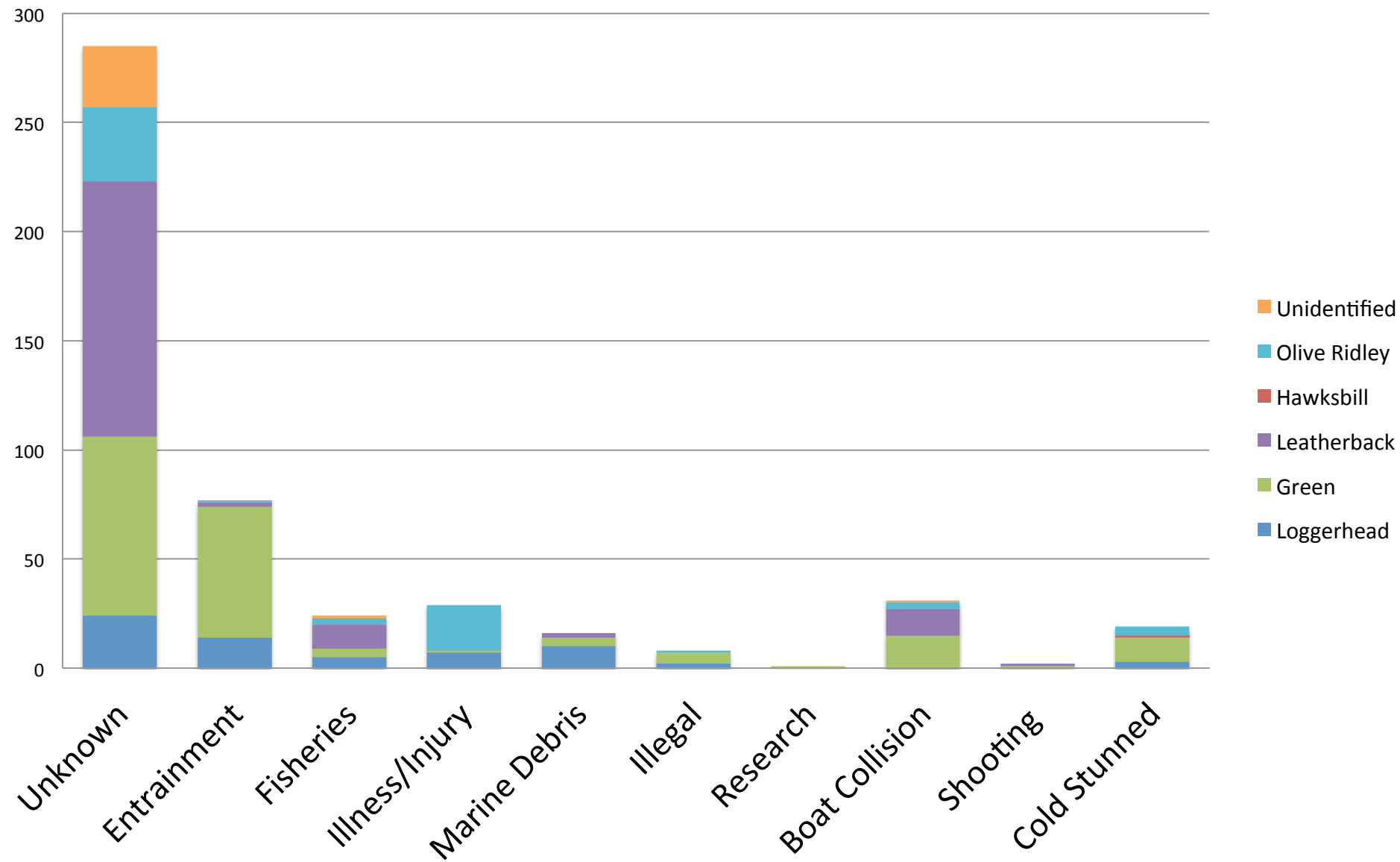
U.S. West Coast Sea Turtle Strandings by Species/Year



U.S. West Coast Sea Turtle Strandings by Month



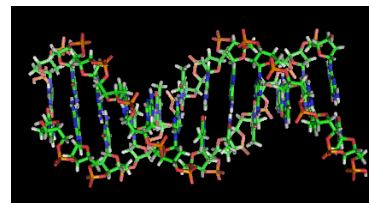
U.S. West Coast Sea Turtle Strandings by Cause



*LeRoux et al. in prep and Hodges and Wing, 2000

U.S. West Coast Sea Turtle Stranding Genetic Results (mtDNA)

Species	Stock Origin
Leatherback	Western Pacific
Green	Eastern Pacific
Olive Ridley	Eastern Pacific
Loggerhead	North Pacific
Hawksbill	Eastern Pacific



*LeRoux et al.
in prep

Noteworthy Strandings

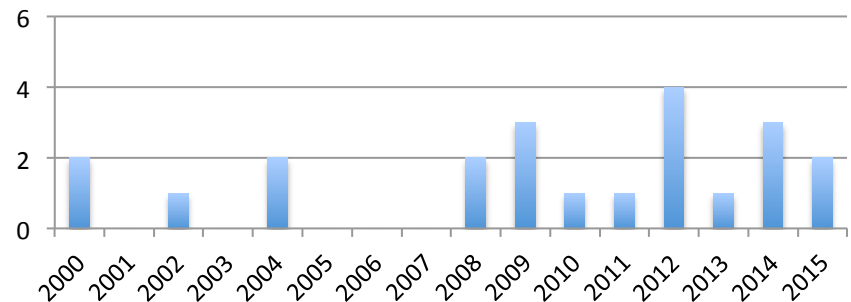


- Several loggerhead strandings (n=5 in 2014, n=3 in 2015) indicating a presence off of the So CA coast



- Increase in number of green turtle strandings in San Diego Bay since the closure of the South Bay Powerplant at the end of 2010.

**San Diego Bay Green
Turtle Strandings 2000-Current**



*LeRoux et al. in prep

Sea Turtle Necropsy Workshop: Case Highlights (Nov 3-5, 2014)



Heather S. Harris, DVM, MPVM

Workshop Goals

1. Conduct postmortem examinations on 16 stranded sea turtles from California
2. Collect samples for necropsy, research, and NIST sea turtle specimen bank
3. Train key members of the California stranding network on sea turtle necropsy protocols
4. Publication on causes of sea turtle mortality along US West coast

Case 1: Green Turtle

- Fresh dead immature female from Encinitas, CA, recovered on 11/14/2012
- Good body condition (4/5)
- Full GI tract
- Full thickness carapace fracture, stomach extruded
- Concern about dredging in the area
- **Cause: Acute Hopper Dredge Mortality**

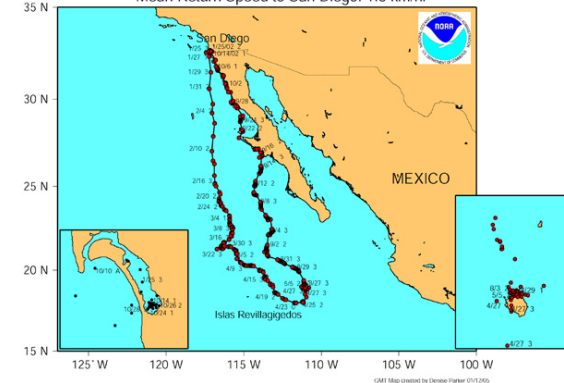


Case 2: Green Turtle “Donna”

- Fresh dead adult female from San Diego Bay, CA, recovered on 10/11/2014
- Excellent body condition (5/5)
- Full GI tract (red algae and eel grass)
- No obvious external injuries
- Tagged animal with long-term multiple capture history in SD Bay since 1990
- First ever round trip satellite track between a foraging and nesting ground
- **Cause: Yolk Embolism**



2002 San Diego Bay tracking of green turtle 5153, Donna
ST-14 Duty Cycle: 9 hrs on, 3 hrs off Days Transmitting: 363 days
Total Distance Traveled: 4096 km Mean Speed to Isla Revillagigedos: 1.0 km/hr
Mean Return Speed to San Diego: 1.8 km/hr



*Harris et al. in prep and Dutton et al. in prep

Sea Turtle Sightings

- Database developed in late 2013 to document sea turtle sightings along the coast
- Documenting sea turtle presence provides highly valuable data for scientific purposes and management needs
- Database documents basic information, location data, and photo's
- Send sighting info to:
SWFSC.Turtle-Sightings@noaa.gov



Please do not attempt to interact with or capture turtles

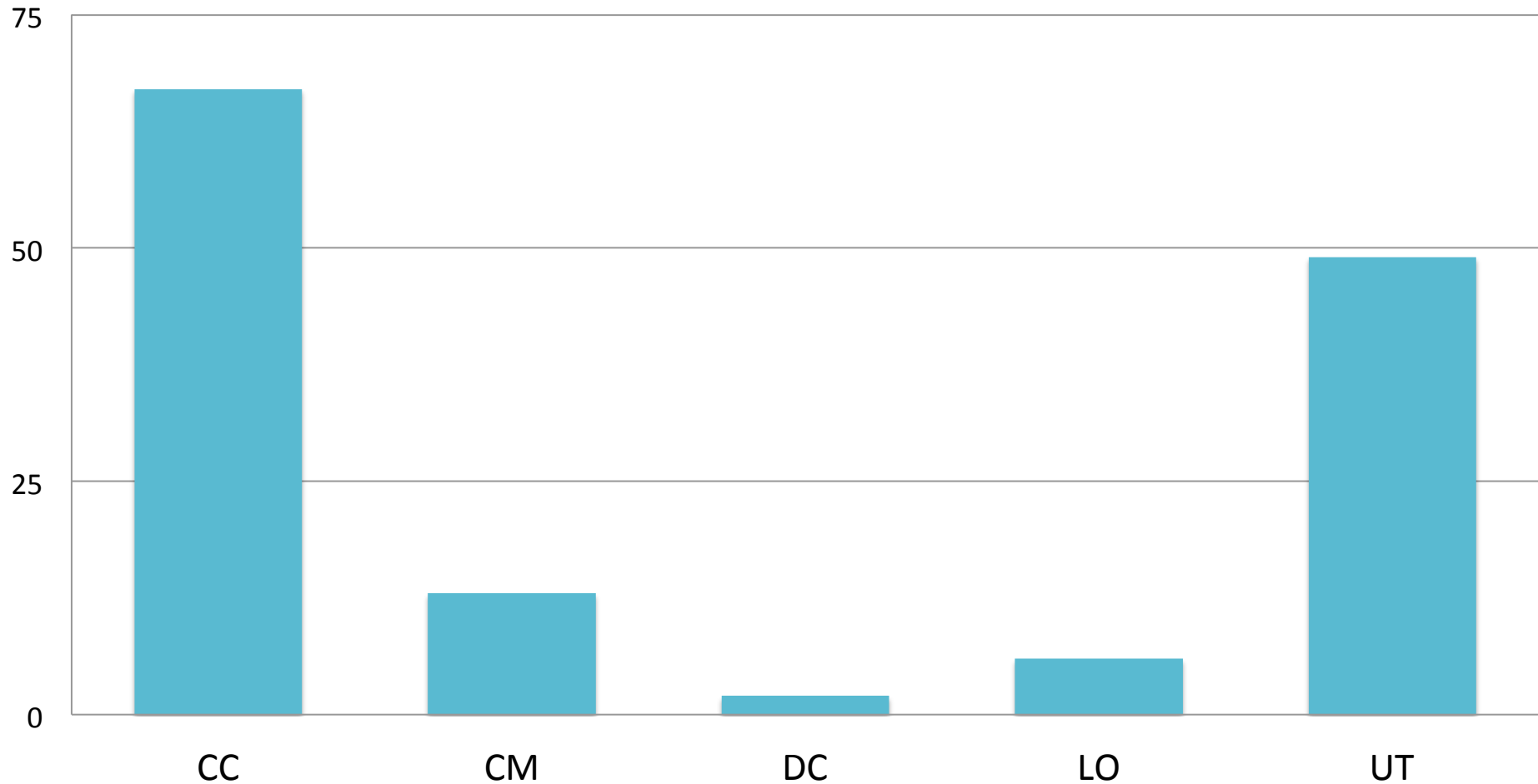
Please report the following information to
SWFSC.turtle-sightings@noaa.gov

- Date
- Latitude / Longitude (or approximate location)
- Approximate Shell Length
- Behavior and Condition (swimming, lethargic, responsive)
- Photos (if possible)



Sea Turtle Sightings Nov. 2013 - Present

Sea Turtle Sightings by Species



*LeRoux et al. unpublished

Questions?



Ralph Pace

SWFSC.Turtle-Sightings@noaa.gov